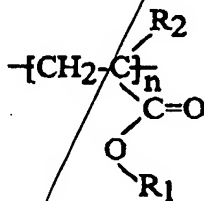


Divisional of 09/391,377  
STANGEL et al.

dimethacrylate, and/or an urethane dimethacrylate resin; a filler, initiator, a coupling agent and, optionally, additional additives.

<sup>20</sup>21. (New) A microwave curable composition suitable for a denture base according to claim <sup>19</sup>20, wherein said composition comprises (a).

<sup>21</sup>22. (New) A microwave curable composition suitable for a denture base according to claim <sup>20</sup>21, wherein said composition contains at least one acrylic polymer containing repeating monomer units represented by the formula



I

wherein

R<sub>1</sub> represents a hydrogen atom, an alkyl group, a substituted alkyl group, a benzyl group, a hydroxy alkyl group, a cyclic hydrocarbon, an ether group,

R<sub>2</sub> represents a hydrogen atom, a halogen atom, an alkyl group, or a substituted alkyl group, and

n is an integer of two or more.

<sup>22</sup>23. (New) A microwave curable composition suitable for a denture base according to claim <sup>21</sup>22, wherein R<sub>1</sub> represents a hydrogen atom, an alkyl group, a cyclic hydrocarbon, a benzyl group, a hydroxy alkyl group, or an ether group.

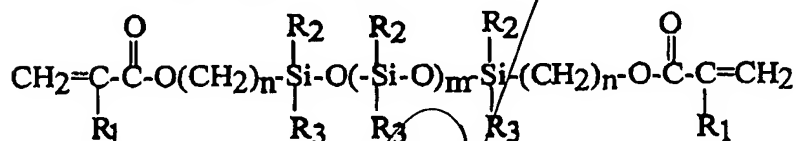
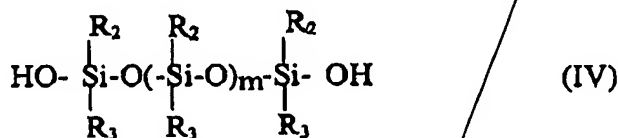
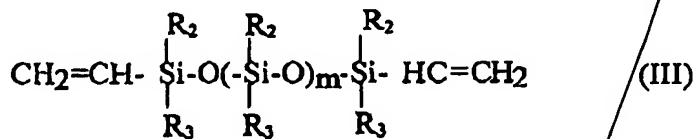
<sup>23</sup>24. (New) A microwave curable composition suitable for a denture base according to claim <sup>22</sup>23, wherein R<sub>2</sub> represents a hydrogen atom, a halogen atom, or an alkyl group.

<sup>24</sup>25. (New) A microwave curable composition suitable for a denture base according to claim <sup>24</sup>24, wherein said filler comprises an organic filler or an inorganic filler.

<sup>25</sup>26. (New) A microwave curable composition suitable for a denture base according to claim <sup>19</sup>20, wherein said composition comprises (b).

Divisional of 09/391,377  
STANGEL et al.

21. (New) A microwave curable composition suitable for a denture base according to claim 25, wherein said organopolysiloxane is represented by any of formulas (III), (IV) or (V)



wherein said formulas

m represents a value of 1 to about 6,000,

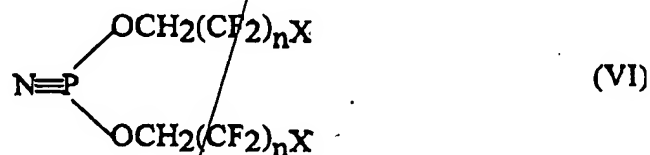
n represents an integer having a value of 1 to 6,

R<sub>1</sub> represents a hydrogen atom or an alkyl group,

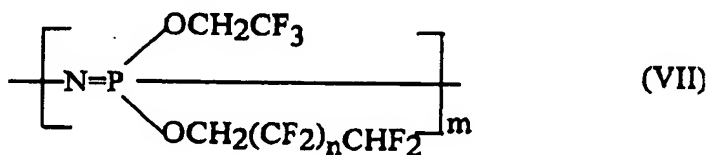
R<sub>2</sub> represents an alkyl group of 1-6 carbon atoms, and

R<sub>3</sub> represents an alkyl group having 1-6 carbon atoms.

28. (New) A microwave curable composition suitable for a denture base according to claim 20, wherein said composition comprises (b) and said at least one phosphonitrile fluoropolymer that is represented by formula (VI):



in which X represents a hydrogen atom or fluorine atom, n is a value of 1 to 11; or that has repeating monomer units represented by formula (VII):



Divisional of 09/391,  
STANGEL et al.

in which n represents 3, 5, 7, 9 or 11 and m is from 10,000 to 50,000.

<sup>28</sup><sub>19</sub> 29. (New) A microwave curable composition suitable for a denture base according to claim <sup>28</sup><sub>19</sub> 26, wherein said composition comprises (c).

<sup>29</sup><sub>28</sub> 30. (New) A microwave curable composition suitable for a denture base according to claim <sup>29</sup><sub>28</sub> 29, wherein said initiator comprises at least one microwave sensitive compound.

<sup>30</sup><sub>29</sub> 31. (New) A microwave curable composition suitable for a denture base according to claim <sup>30</sup><sub>29</sub> 30, wherein said initiator comprises at least one member selected from the group consisting of benzoyl peroxide, dilauroyl peroxide, (tert-butyl) peroctoate, tert-butyl perbenzoate, 2,4-dichlorobenzoyl peroxide and 4,4-dichlorobenzoyl peroxide.

<sup>31</sup><sub>29</sub> 32. (New) A microwave curable composition suitable for a denture base according to claim <sup>31</sup><sub>29</sub> 30, wherein said composition contains 0.05% to 1.0% by weight of said initiator.

<sup>32</sup><sub>28</sub> 33. (New) A microwave curable composition suitable for a denture base according to claim <sup>32</sup><sub>28</sub> 29, wherein said coupler comprises gamma-methoxypropylene silane or a thiomethacrylate.

<sup>33</sup><sub>28</sub> 34. (New) A microwave curable composition suitable for a denture base according to claim <sup>33</sup><sub>28</sub> 31, wherein (a) further comprises an amine accelerator.

<sup>34</sup><sub>19</sub> 35. (New) A microwave curable composition suitable for a denture base according to claim <sup>34</sup><sub>19</sub> 26, wherein said filler comprises particles having a particle size in the range of 0.04 to approximately 10 micrometers.

<sup>35</sup><sub>19</sub> 36. (New) A method for forming a hardened object comprising

- (i) forming a hardenable composite from a microwave curable composition according to claim <sup>35</sup><sub>19</sub> 26; and
- (ii) obtaining said hardened object by using a hand-held microwave applicator to apply microwave energy to harden said composite.

Divisional of 09/391,3  
STANGEL et al.

*2/26*  
*On*  
*B1*  
<sup>36</sup><sub>37</sub>. (New) A method according to claim <sup>35</sup><sub>36</sub>, wherein said composite is a dental prosthetic or orthopedic element.

<sup>37</sup><sub>38</sub>. (New) A method according to claim <sup>36</sup><sub>37</sub>, wherein said composite is a dental prosthetic and in (ii) the hardening is intra-oral using said hand-held microwave applicator.

*2/26*  
<sup>38</sup><sub>39</sub>. (New) A method according to claim <sup>36</sup><sub>37</sub>, wherein said dental prosthetic is a composite filling, a crown, a bridge, an inlay, an overlay, a facing, a veneer or orthodontic appliance.

See Appendix